**Course: \_\_\_\_\_6\_\_\_\_ CCSS Standard Number(s): \_\_\_\_6.EE.2c\_\_\_\_\_\_ Day: \_\_\_\_\_\_\_\_\_\_\_**

**Unit # and Title: \_\_\_\_\_Order of Operations\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Block(s)/Period(s): 1 2 3 4 5 6**

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| **Unit Essential Question(s):** | How are variables used in mathematics?  How can we generate equivalent expressions? | | |
| **Learning Target(s)**  **“I can statements”** | I can apply the order of operations when evaluating both arithmetic and algebraic expressions. | | |
| **Essential Vocabulary** | **Parentheses, Exponent, multiply, divide, addition, subtraction, order of operations, product, quotient, sum, difference** | | |
| **Resources and Materials** | **Teacher** | | **Student** |
| **Access to video clip**  **PowerPoint from Johnson**  **Holt McDougal online TE** | | **Work samples for Erika and Jamie**  **Calendar** |
| **8 Mathematical Practices:** | | | |
| X 1. Make sense of problems and persevere in solving them.  X 2. Reason abstractly and quantitatively.  3. Construct viable arguments and critique the reasoning of others.  4. Model with mathematics. | | 5. Use appropriate tools strategically.  X 6. Attend to precision.  X 7. Look for and make use of structure.  8. Look for and express regularity in repeated reasoning. | |
| **Activating Strategy**  **(Opening Activity)** | **Provide students with two examples of student work to evaluate:**  **Erika and Jamie each simplified 3 + 4 x 6. Their work is shown. Whose answer is correct?**  **See Holt McDougal book page 22 for student work.** | | |
| **Cognitive Teaching Strategies**  **Me/We/Few/You**  **(TIP-Teacher input**  **SAP-Student actively participates**  **GP – Guided Practice**  **IP-Independent Practice)** | **Me—Teach PEMDAS as structure for getting correct answer when more than one operation exists. Use Johnson’s PowerPoint. Also PEMDAS rap** [**http://teachertube.com/viewVideo.php?video\_id=79967**](http://teachertube.com/viewVideo.php?video_id=79967)  **We—Begin using 2, 3, 4, 5 to create problems to equal 1-30. Use at least 3 of the 4 digits in each expression—NO REPEATS. Operations may be repeated. Be sure to use parentheses and exponents!**  **Students record expressions on calendar. Do 1-10 together.**  **Two—Partners continue working on answers 11-30.** | | |
| **Summarizing Strategy**  **(Closing Activity)** | **Learning Log—Explain why Jamie’s answer was wrong in the opener.** | | |
| **Assessment/Homework** | **Complete 1-30 from classroom activity.** | | |
| **Extending/Refining** | **Struggling groups—focus on solutions from 1-10.** | | |